

WHAT IS CLAIMED IS:

1. An information processing device comprising:
a display unit whose display brightness is
changeable;

5 means for detecting the lightness of surroundings;
 means for determining a target display brightness
of the display unit responsive to the lightness
detected by the means for detecting the lightness; and
 means for changing the display brightness of the
10 display unit in steps until the target display
 brightness is reached when changing the display
 brightness to the target display brightness determined
 by the means for determining the target display
 brightness.

15 2. The information processing device according to
 claim 1, wherein the means for changing the display
 brightness includes means for instantly changing the
 display brightness to the brightness determined by the
 means for determining the target display brightness
20 when the lightness is changed and means for deciding
 whether to switch the brightness change by the means
 for instantly changing.

 3. The information processing device according to
claim 1, further comprising:

25 the means for changing the display brightness
 includes means for setting the display brightness of
 the display unit to a first brightness level responsive

to the means for detecting the lightness when a first
lightness level is detected by the means for detecting
the lightness and to a second brightness level when a
second lightness level is detected by the means for
5 detecting the lightness, wherein

the means for first changing the display
brightness first changes the display brightness of the
display unit from the first brightness level to a third
brightness level between the first and second
10 brightness levels, and then changes the display
brightness thereof from the third brightness level to
the second brightness level responsive to the means for
setting the display brightness when changing the
display brightness from the first brightness level to
15 the second brightness level.

4. The information processing device according to
claim 3, wherein the means for changing the display
brightness includes means for instantly changing the
display brightness to the brightness determined by the
20 means for determining the target display brightness
when the lightness is changed and means for deciding
whether to switch the brightness change by the means
for instantly changing.

5. The information processing device according to
25 claim 3, wherein the means for changing the display
brightness changes the display brightness of the
display unit from the first brightness level to the

third brightness level, and thereafter changes the display brightness from the third brightness level to the second brightness level after a lapse of a predetermined time period.

5 6. The information processing device according to claim 5, wherein the means for changing the display brightness includes means for instantly changing the display brightness to the brightness determined by the means for determining the target display brightness
10 when the lightness is changed and means for deciding whether to switch the brightness change by the means for instantly changing.

7. The information processing device according to claim 1, further comprising:

15 means for deciding whether or not the difference between the target brightness determined by the means for determining the target display brightness and the current display brightness is greater than a predetermined value, wherein

20 the means for changing the display brightness changes the display brightness in steps at regular intervals until the target display brightness is reached when the means for deciding the difference decides that the difference is greater than the
25 predetermined value.

8. The information processing device according to claim 5, wherein when the difference is not greater

than the predetermined value, the means for changing the display brightness changes instantly the display brightness of the display unit to the brightness determined by the means for determining the target display brightness.

9. A brightness control method of an information processing device having a display unit whose display brightness is changeable, the brightness control method comprising:

10 detecting a lightness of surroundings;
determining the target display brightness of the display unit in accordance with the detected lightness;
and
changing the display brightness of the display unit in steps with time until the target display brightness is reached.

10. The brightness control method according to claim 9, further comprising:

20 setting the display brightness of the display unit to a first brightness level when a first lightness level is detected; and

setting the display brightness of the display unit to a second brightness level when a second lightness level is detected, wherein

25 the changing the display brightness changes the display brightness thereof first from the first brightness level to a third brightness level between

the first and second brightness levels and then changes the display brightness thereof from the third brightness level to the second brightness level.

5 11. The method according to claim 10, wherein the display brightness of the display unit is changed from the first brightness level to the third brightness level, and thereafter the display brightness is changed from the third brightness level to the second brightness level after a lapse of a predetermined time
10 period.

12. The brightness control method according to claim 9, further comprising:

deciding whether or not the difference between the target brightness and the current display brightness is
15 greater than a predetermined value, wherein

the changing the display brightness includes changing the display brightness of the display unit in steps at regular intervals until the target display brightness is reached when the difference is greater
20 than the predetermined value.